



San Francisco Resident Opinion Research on Food Waste Summary of Findings



Presented to San Francisco Commission on
the Environment Operations Committee Meeting
October 20, 2021

- ▶ Telephone and online survey of San Francisco adult residents conducted June 3 –15, 2021
 - 800 interviews; margin of error \pm 3.46 percentage points.
 - Conducted in English, Spanish, and Chinese
 - Survey delivered by emails, text message, landline, and mobile phones

- ▶ Six focus groups with San Francisco residents conducted in August 2021
 - Groups conducted with behavior change targets identified from the survey results
 - Eight participants per group; groups in English (4), Spanish (1), and Chinese (1)

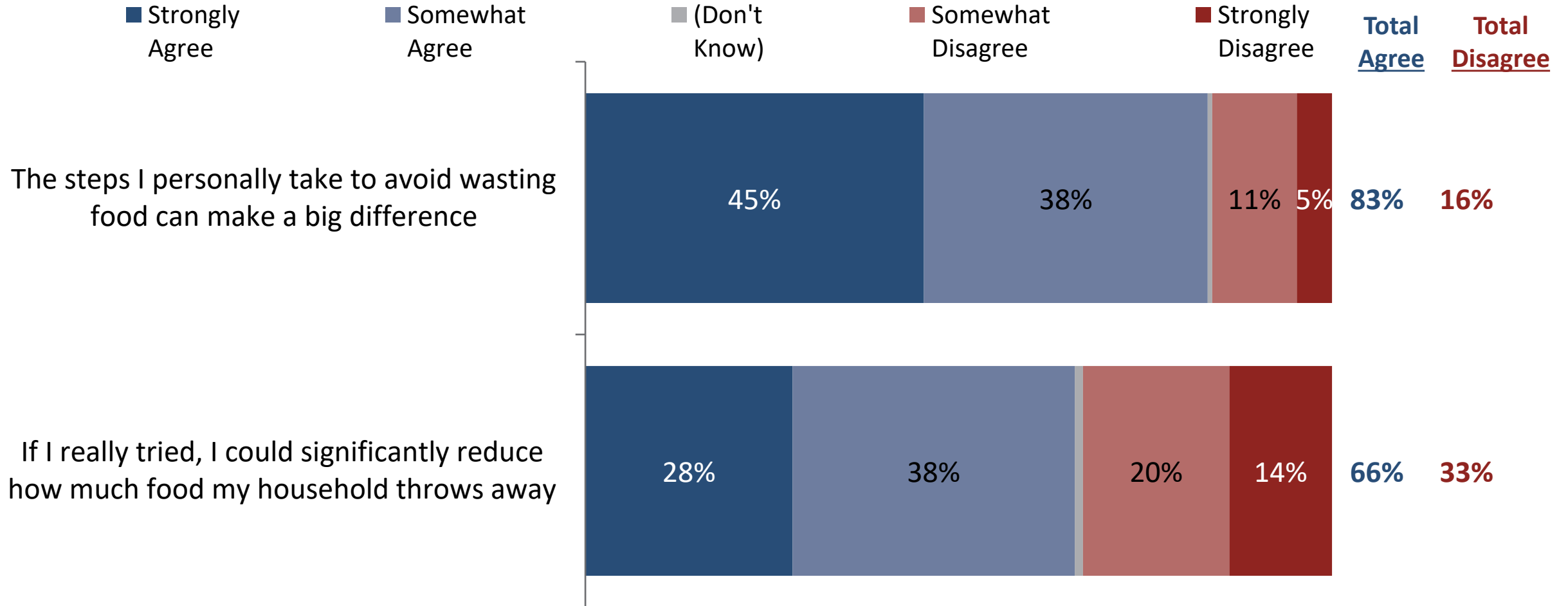


Summary of Research Findings

- ▶ Most San Francisco residents are able and open to doing more to reduce food waste, even many of those who think they do not waste food.
 - While half are concerned about the amount of food they throw away, three-quarters say they are willing to take additional steps to reduce food waste, and two-thirds believe there is more they can do to significantly reduce their food waste.
- ▶ In the focus groups, there was general agreement about the importance of reducing food waste, but some skepticism that individual behaviors are really the issue, as compared with organizational waste from groceries, restaurants, and hotels.
- ▶ Many harbored feelings of guilt around wasting food. Cost was a significant part of it, as well as hunger and need among the less fortunate, environmental consequences, and a departure from their instilled cultural values around food.
- ▶ The pandemic environment has shifted many to preparing food more often at home, and many feel that results in them wasting less food in general.

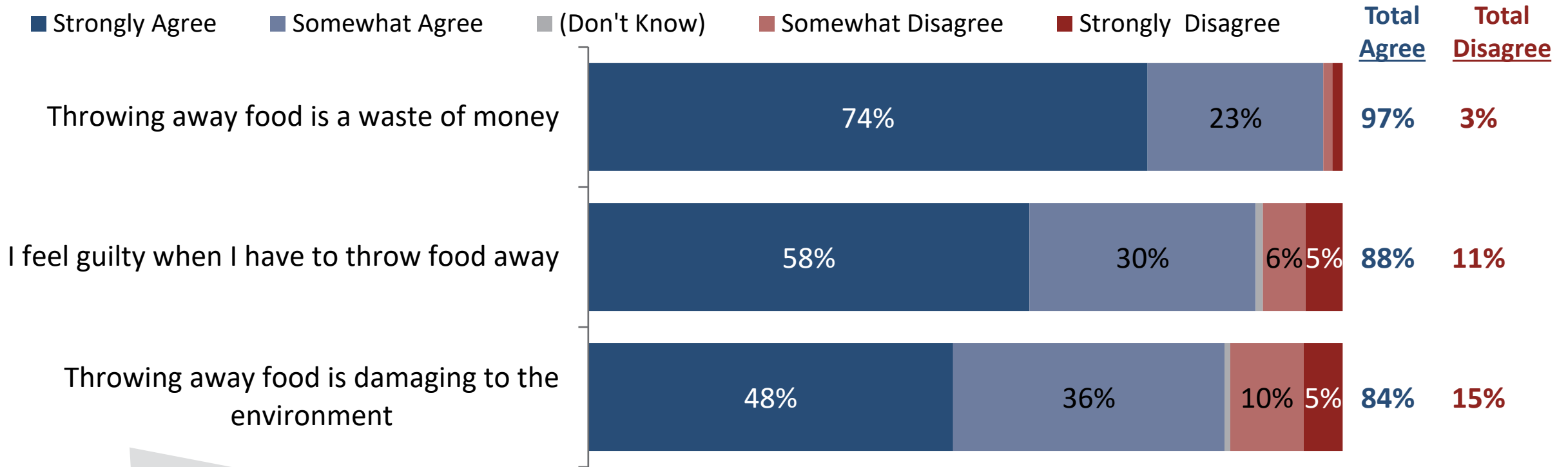
Food Waste Reduction Attitudes

Most San Francisco residents feel the steps they personally take to avoid wasting food can make a difference, and two-thirds feel they could reduce their food waste.



Food Waste Attitudes

While food waste is associated with wasting money, guilt, and environmental damage, money is the most prominent.



“We live in a city that is not cheap, so it costs a lot of money. And then I don't finish eating all my food - I'm wasting money. I'm not a millionaire.”

– Economical Eaters 50+

“I try not to waste any food. My mother lived in a poor family...and she made something always out of something. It's very rare when I waste something in my house.”

– Culinary Connoisseurs 50+

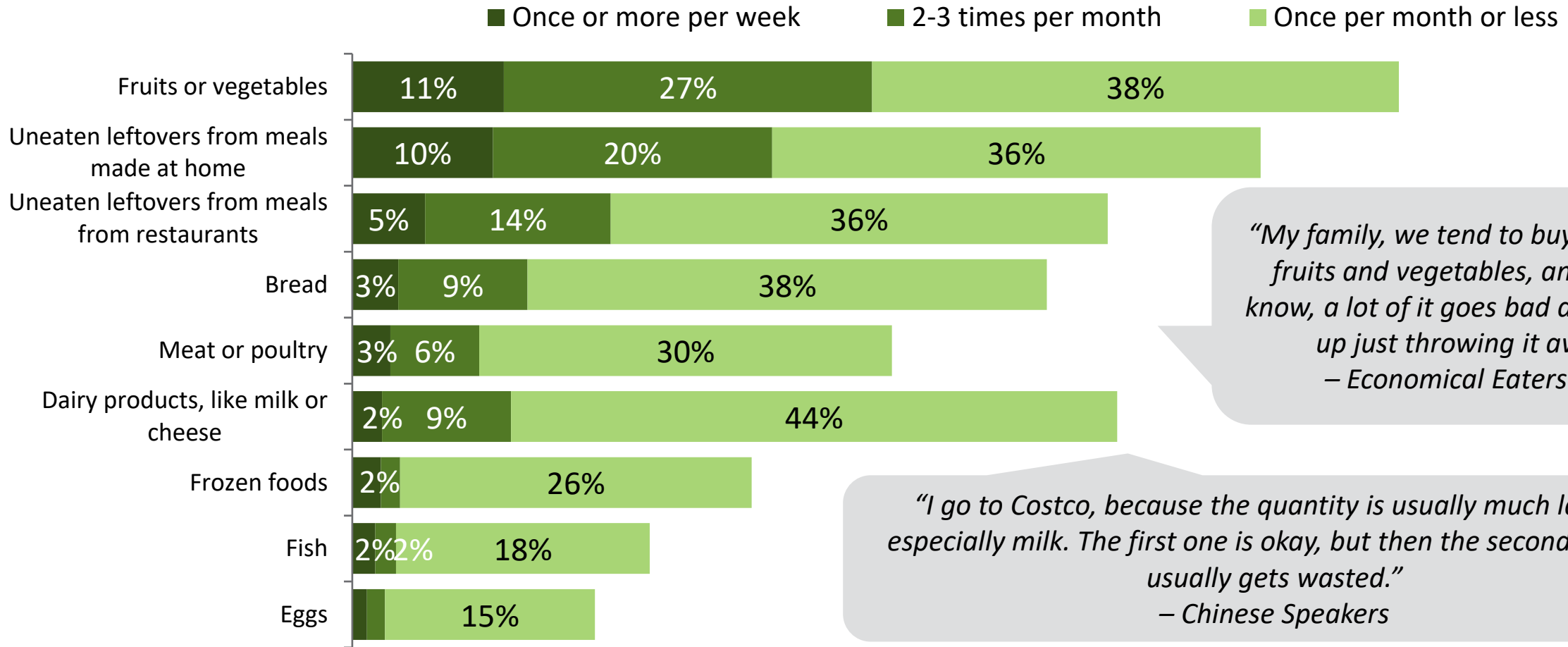
Current Food Waste Behaviors

- ▶ Fresh produce and leftovers of home-prepared foods are seen as the most common types of food waste.
 - Fresh produce often was often purchased impulsively without a specific plan for using it and tended to get “lost” in the refrigerator and eventually wasted.
 - While many people purposely created leftovers, they weren’t always enthusiastic about eating them, and if they did not get eaten quickly, they were often wasted.
- ▶ For many, purchasing perishable foods—particularly fresh herbs and breads—in small enough quantities is a challenge, especially for smaller households.
- ▶ Proteins are seen as the least likely to be wasted, such as meats, cheese, and eggs. Many had strategies to ensure these items were optimized, such as freezing or tests for freshness beyond the date on the package.

Food Waste Frequency

Residents are more likely to waste fruits or vegetables and uneaten leftovers than the other products tested.

How often does your household throw away each of the following types of food instead of using or eating it?



“My family, we tend to buy too much fruits and vegetables, and I don't know, a lot of it goes bad and we end up just throwing it away.”
 – Economical Eaters <50

“I go to Costco, because the quantity is usually much larger, especially milk. The first one is okay, but then the second gallon, usually gets wasted.”
 – Chinese Speakers

Food Waste Behavior Change

- ▶ There is significant interest in supporting ways to ensure the food they purchase gets used, such as using smell and sight to determine if it can still be eaten, removing damaged parts of produce, and improving storage techniques for freshness and recall.
- ▶ Planning meals in advance and disciplined shopping were viewed as ways to prevent overbuying or aspirational buying, particularly of produce items, although some wanted to leave space to be inspired in the moment.
- ▶ Having a specific plan for leftovers was another area where there was some interest, but each strategy had a fairly narrow appeal—such as freezing leftovers and giving them away.



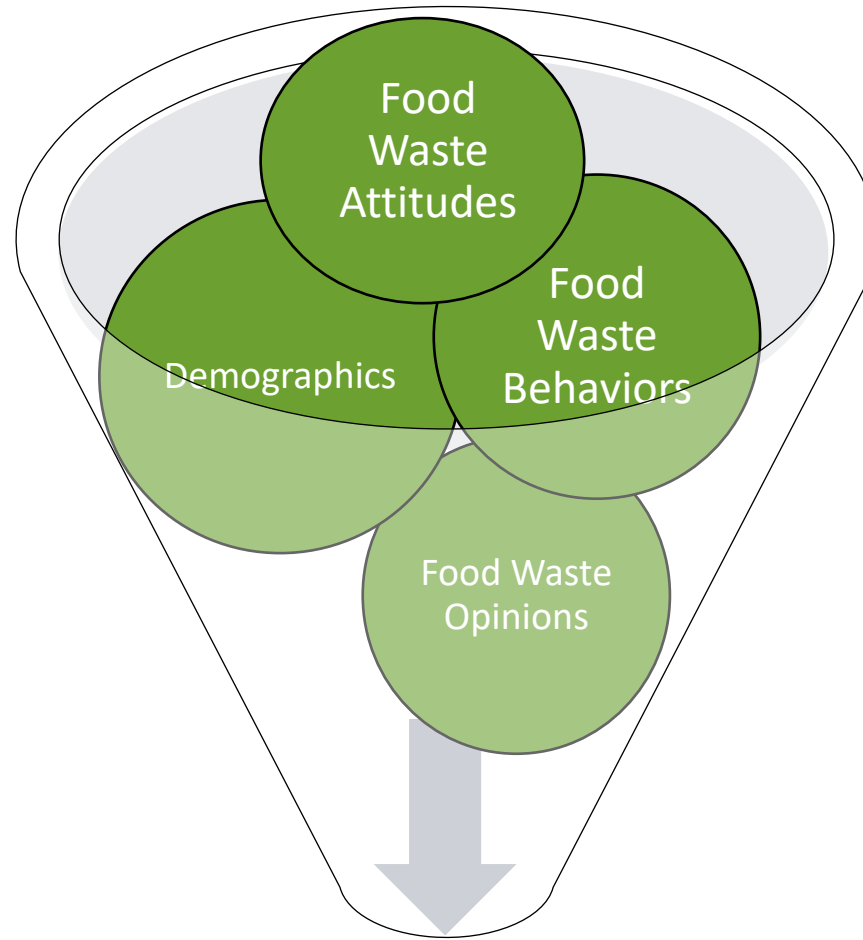
Food Waste Personas

Food Waste Persona Creation

Inputs

Attitudinal and **Behavioral** questions from the survey were used to create a set of **Food Waste Personas**.

Demographics and opinions about food waste were used to understand key differences between groups and inform communications recommendations.



Food Waste Persona Analysis

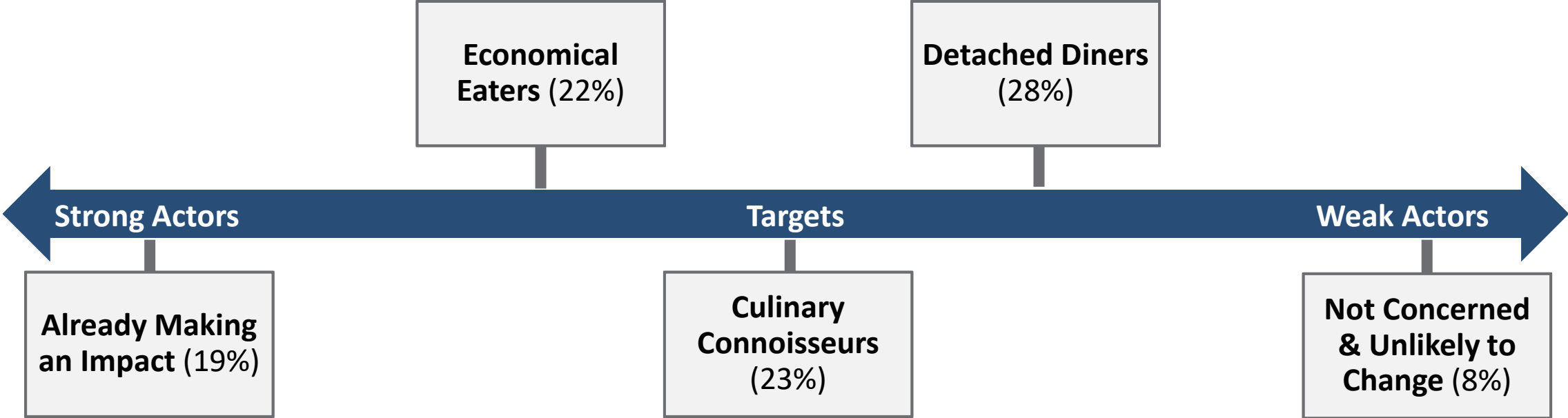
Why Create Personas?

*Machine learning and data science analyses are applied to key survey questions in order to assign all respondents to one of several distinct Persona groups. Persona Groups are based on stated **attitudes** and **behaviors** related to the topic at hand.*

*Personas **reduce human bias** and **discover hidden patterns** to optimize our understanding.*

Personas allow us to assess and better understand different attitudinal, behavioral, and demographic segments of the population, and their relative size.

San Francisco Food Waste Personas



Target: Economical Eaters (22%)

Economical Eaters feel cooking is a chore, but economical; saving money by wasting less food is a key motivator.

Key Demographic Differentiators:

- Lowest income group – 54% make less than \$100K
- Largest non-White group – 23% Hispanic and 28% Chinese
- Least educated – 53% without a 4-year college degree
- 50% live in a single-family home; 73% living with family members

Key Attitudes & Behaviors:

- 67% concerned about food waste
- 90% likely to take steps to prevent food from going to waste
- 99% agree that cooking is just another chore that has to get done
- 95% agree that they make meals at home to save money
- 97% agree that if they tried, they could significantly reduce the amount of food thrown away
- 98% agree that the steps they take to avoid wasting food can make a big difference
- 91% **strongly** agree throwing away food is a waste of money
- 93% agree throwing away food is damaging to the environment – 71% **strongly** agree
- 70% likely to share or give away food or leftovers, the largest group by far
- Top food shops: Warehouse stores, farmer’s markets, Safeway, Trader Joe’s, Costco
- Top media channel preferences: TV, Email, Facebook

Subgroup	All Residents	Economical Eaters
18-34	30%	23%
35-44	19%	18%
45-64	31%	39%
65+/Unknown	20%	19%
Hispanic	14%	23%
Chinese	21%	28%
Other Asian or Pacific Islander	12%	14%
White	51%	34%
Less than college	33%	53%
College+	67%	47%
Employed	64%	63%
Not Employed	36%	37%
> \$100K	36%	54%
\$100K+	45%	26%
Live with family members	69%	73%
Live with roommates	12%	13%
Live alone	19%	14%
Children in Household	25%	33%
No Children in Household	75%	67%
Single-family home	42%	50%
Apartment/Else	58%	50%

Target: Culinary Connoisseurs (23%)

Culinary Connoisseurs are more inspired by cooking; the challenge of meal creation is a key motivator.

Key Demographic Differentiators:

- Highest income group – 64% of households earning \$100K+ and 30% earning \$200K+
- Second largest group of White residents – 61% White
- Largest employed group – 72% employed and 62% full-time
- Most educated – 81% with a 4-year college degree or more
- Most likely to live in a 2-person household (40%); most likely to live in an apartment or non-single-family home (63%)

Key Attitudes & Behaviors:

- 83% likely to take steps to prevent food from going to waste
- 99% **disagree** that cooking is just another chore that has to get done
- 95% agree they love trying new recipes when cooking
- 75% agree that if they tried, they could significantly reduce the amount of food thrown away
- 92% agree that the steps they take to avoid wasting food can make a big difference
- 91% agree throwing away food is damaging to the environment
- 87% are likely to store food in a way that keeps it good for as long as possible – 70% **very** likely
- 88% likely to create meals from things they have that need be used
- Top food shops: Farmer’s markets, Safeway, Trader Joe’s, local markets
- Top media channel preferences: Newspaper, Email, Instagram

Subgroup	All Residents	Culinary Connoisseurs
18-34	30%	32%
35-44	19%	19%
45-64	31%	34%
65+/Unknown	20%	14%
Hispanic	14%	12%
Chinese	21%	13%
Other Asian or Pacific Islander	12%	13%
White	51%	61%
Less than college	33%	19%
College+	67%	81%
Employed	64%	72%
Not Employed	36%	28%
> \$100K	36%	23%
\$100K+	45%	64%
Live with family members	69%	68%
Live with roommates	12%	12%
Live alone	19%	20%
Children in Household	25%	21%
No Children in Household	75%	79%
Single-family home	42%	37%
Apartment/Else	58%	63%

Target: Detached Diners (28%)

Detached Diners are soft targets with low intensity attitudes and behaviors; they are harder to engage on this topic.

Key Demographic Differentiators:

- Largest group of Chinese residents – 29% Chinese
- Largest group of 18- to 34-year-old residents – 36%

Key Attitudes & Behaviors:

- 56% **not** concerned about wasted food
- 76% likely to take steps to prevent food from going to waste; intensity is low – 55% **somewhat** likely
- 92% agree cooking is just another chore that has to get done – 68% **somewhat** agree
- 89% agree throwing away food is damaging to the environment; intensity is low – 56% **somewhat** agree
- 94% agree they feel guilty when throwing food away; intensity is low – 52% **somewhat** agree
- 79% agree that the steps they take to avoid wasting food can make a big difference; intensity is low – 59% **somewhat** agree
- Top food shops: Warehouse stores, Safeway, Trader Joe’s, Costco
- Top media channel preferences: TV, Newspaper, Email

Subgroup	All Residents	Detached Diners
18-34	30%	36%
35-44	19%	18%
45-64	31%	21%
65+/Unknown	20%	26%
Hispanic	14%	10%
Chinese	21%	29%
Other Asian or Pacific Islander	12%	9%
White	51%	49%
Less than college	33%	32%
College+	67%	68%
Employed	64%	63%
Not Employed	36%	37%
> \$100K	36%	38%
\$100K+	45%	42%
Live with family members	69%	66%
Live with roommates	12%	13%
Live alone	19%	21%
Children in Household	25%	24%
No Children in Household	75%	76%
Single-family home	42%	42%
Apartment/Else	58%	58%

Communications Recommendations

- ▶ Most San Francisco residents are able and open to doing more to reduce food waste, even many of those who think they do not waste food
- ▶ An effective communications effort should focus on the following:
 - **Attract attention** – *you can save money and be kinder to the environment*
 - **Raise awareness** that there is more they can do – *uneaten leftovers and unused produce are often thrown out in San Francisco, which is bad for your wallet and the environment*
 - **Guide them to specific actions** around key products – *strategies to keep food fresh longer, reminders to use up leftovers quickly, invitation to share your leftovers with friends/food lovers/people in need*
- ▶ Targeting communications to match sentiments on food costs and love of food may be effective in making the emotional connection needed to effect behavior change.
- ▶ Communications on apps, online, tv, and grocery stores were mentioned as places they would like to learn about reducing food waste.
- ▶ Discussing how San Francisco is also working with corporations and organizations to share the responsibility to reduce food waste can help people feel like everyone has a role to play in the effort.



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